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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
FERRIS, DERRICK W

ART UNIT	PAPER NUMBER
2663	

DATE MAILED: 03/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/343,165	HALL ET AL.	
	Examiner	Art Unit	
	Derrick W. Ferris	2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 January 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6 and 11-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6 and 11-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 June 1999* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

1. **Claims 1-6 and 11-24** as amended are still in consideration for this application.

2. Examiner thanks applicant for submitting a substitute specification. Examiner also thanks applicant for removing references to the claims in the Summary.

3. Examiner thanks applicant for clarifying the claims with respect to the claim objection for Office action filed 8/27/02. Examiner **withdraws** the claim objection.

4. Examiner **withdraws** the obviousness rejection to *Cisco* in view of *Eastmond et al.* for Office action filed 8/27/02 based on the clarified (and narrower) claims for **Claims 1-6 and 11-18**. However, examiner notes a new 112-first paragraph rejection for these claims as amended (see below). Examiner does **not withdraw** the obviousness rejection for **claims 19-24** since examiner is allowed a reasonable but broad interpretation of the claimed subject matter where applicant's claims are still broadly recited. Specifically, examiner notes a broad interpretation with respect to the following claim limitation for claim 19:

> "*storing one of more global addresses of the kind appearing in said packet data for communication between said first host and second host*" [claim 19, lines 8-11].

Examiner notes routing in general of said packet data having said translated global address therein towards said second host where applicant has not disclosed where this routing is to take place thus providing examiner with a reasonable but broad interpretation of the claimed subject matter.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. **Claims 1-6 and 11-18** are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically, examiner notes that applicant does not provided enough information for a skilled artisan to make or use the invention with respect to applicant's preferred embodiment of integrating the packet data communication features of a memory 206 for storing a number of globally defined network layer addresses, a router 204, and a address translator 207 with respect to a device that has a wireless interface that connects to a mobile station 205 or is part of a mobile station 205 [Applicant's substitute specification on page 8, lines 8-10; page 8, lines 19-21; page 10, lines 15-18; and page 10, lines 19-24]. Applicant also asserts that U.S. Patent No. 5,708,655 is incorporated by reference and examiner notes that these three elements (i.e., a memory 206, a router 204, and an address translator 207 with respect to a mobile station) are also not all found in one device, emphasis figure 6 with respect to a mobile station 50. Thus not enough information is disclosed in the specification to enable one of ordinary skill to combine these features into or in conjunction with a mobile station 205. This combination with respect to the claims is recited as follows:

Claim 1 (amended), lines 2-3 - "a mobile station connected to said router said mobile station adapted to wirelessly communicate to an external network"

Claim 6 (amended), lines 7-9 - "storing in a router associated with said first number of interconnected hosts, one or more globally defined addresses of the kind utilized in

communicating said packet data between said interconnected hosts and said second host in the external network.

Since claims 2-5 and 11-13 rely on independent claim 1 and claims 15-18 rely on independent claim 16, these claims also stand rejected under 112-first paragraph. Examiner notes claims 19-24 do not stand rejected under 112-first paragraph because these claims broadly recite a memory 206, routing functionality (and not necessarily router 204), and an address translator 207 any where between a first node and a second node which is not necessarily found on a first LAN as part of or in conjunction with a mobile station 205.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. **Claim 23** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant has amended claim 23, line 5 to include "said router means". Examiner notes no prior reference to a "router means" is found in the claim or base claims. Specifically claims 19 and 23 as amended recite routing but to not recite a router.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. **19-24 as amended** are rejected under 35 U.S.C. 103(a) as being unpatentable over "Configuring Network Address Translation" by *Cisco* in view of U.S. Patent No. 6,088,337 to *Eastmond et al.*

As to **claim 19**, shown in figure 130 of Configure Network Address Translation (herein referred to as "*Cisco*") are two separate networks separated by a router such that one of the networks is referred to as an inside network (i.e., a wireless or mobile LAN) and the other is referred to as an outside network (i.e., an external network). Also shown in the figure is a first number of hosts in an inside network (i.e., hosts on a mobile LAN). Shown in the diagram is at least one host (e.g., host with address 1.1.1.1) sending packet data to a host located on an outside network (i.e., the external network or Internet). This packet first traverses a router where a network address translation (NAT) is performed as shown in the diagram. As this translation is predetermined, it is inherently stored in the router. Shown is the packet being sent to host B on the external network where the translated packet has been modified with one of the globally defined addresses (e.g., the source address translated from 1.1.1.1 to 2.2.2.2).

Not shown in the figure is a mobile station connected to a router. Examiner notes that assuming the mobile phone has a network connection, it would be possible to connect a mobile to said router in general. Examiner also notes the no relationship between said mobile and the two networks are mentioned in the base or parent claim(s). However, assuming there is a relationship as shown in figure 2 of applicant's disclosure, examiner notes that it would have been obvious to pass traffic using a mobile phone over a wireless link while still performing a network translation. Examiner notes this would

have been obvious because the wireless link occurs at layer 1 (and possibly 2), while the network address translation performed occurs at layer 3 using the OSI model.

Examiner notes that in general, network address translation, commonly referred to as NAT, and port address translation, commonly referred to as PAT, have long existed before applicant's disclosure. Such that translating addresses between one network (e.g., a mobile LAN), and another network (e.g., an external) network would have been obvious to a skilled artisan prior to applicant's invention. Examiner, furthermore, notes that applying said address translation using a mobile or wireless network would have also been obvious to a skilled artisan prior to applicant's invention. *Eastmond et al.* furthermore illustrate such an example [column 10, lines 38-67;column 11, lines 1-10]. Examiner notes that the motivation for doing so is that "NAT allows an organization with nonglobally routable addresses [i.e., local addresses] to connect to the Internet [i.e., an external network] by translating those addresses into a globally routable address space" [Configure Network Address Translation, page DC-693]. Hence there exists a strong motivation for combining the subject matter as a whole for both references with respect to showing that NAT is prevalent in a wireless network.

As to **claim 22**, shown in figure 130 is sending a data packet from host B on an external network, where the destination address 2.2.2.2, to a host on the inside network (i.e., a first of a first number of hosts) such that a network address translation is performed and the destination address is translated into a local address (i.e., the destination address is translated into 1.1.1.1).

As to **claim 23**, examiner notes that it is a matter of design choice for placing the routing and network address translation functionality such that it would have been obvious to a skilled artisan to place this functionality within a mobile phone, assuming that the mobile phone has such functionality available.

As to **claim 24**, it is well known in the art prior to applicant's invention to perform network address translation from either many-to-one or many-to-many nodes such that it would have been obvious to translate only one globally defined address. For example, Cisco discloses overloading an inside global address on page DC-697 and illustrated in figure 131.

As to **claims 20 and 21**, shown in figure 130 (and discussed in the rejection for claim 1) is using more than one global address. In addition, the address is maintained for a period of time disclosed on page DC-703. Also disclosed is changing the global IP address to a second global IP address after the timeout occurs.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. **Claims 1-6, 11-18, and 19-24 as amended** are rejected under 35 U.S.C. 103(a) as being unpatentable over "Configuring Network Address Translation" by *Cisco* in view of "MINT – A Mobile Internet Router" by Klemets et al. ("*Klemets*").

As to **claim 1, 3 and 6**, shown in figure 130 of Configure Network Address Translation (herein referred to as "*Cisco*") are two separate networks separated by a router such that one of the networks is referred to as an inside network (i.e., a wireless or mobile LAN) and the other is referred to as an outside network (i.e., an external network). Also shown in the figure is a first number of hosts in an inside network (i.e., hosts on a mobile LAN). Shown in the diagram is at least one host (e.g., host with address 1.1.1.1) sending packet data to a host located on an outside network (i.e., the external network or Internet). This packet first traverses a router where a network address translation (NAT) is performed as shown in the diagram. As this translation is predetermined, it is inherently stored in the router. Shown is the packet being sent to host B on the external network where the translated packet has been modified with one of the globally defined addresses (e.g., the source address translated from 1.1.1.1 to 2.2.2.2).

Not shown in the figure 130 is a mobile station connected to a router. Examiner notes that using a mobile station as part of a router would have been obvious to a skilled artisan prior to applicant's invention. In other words, it would have been obvious to a skilled artisan prior to applicant's invention to attach a wireless interface to the router such that a router can communicate wirelessly with an external network such as the Internet. Examiner notes that one motivation would be that a LAN cannot be connected to the Internet via a wired (i.e., cabled) network and thus must be connected by some other means, such as a wireless network thus providing a motivation for using a wireless interface on a router in general. Examiner notes this is common in urban environments where a wide river separates one network on one side of the river with another, external

network, on the other side of the river. Using this line of reasoning, examiner notes that a router (with wireless interface between the router and the Internet) is shown in figure 130 on page DC-695 where a LAN is the inside network and Host B is connected to an external network. In other words at issue between examiner and applicant with respect to applicant's figure 2 (or figure 4) and *Cisco*'s figure 130 is that applicant is attempting to claim the limitation of a wireless router as novel or unobvious since *Cisco* discloses a router capable of performing NAT between a LAN and an external network. Examiner believes this limitation would have been obvious to a skilled artisan prior to applicant's invention. By way of example, *Klemets* discloses a wireless router called a Mobile INTernet Router (MINT) as part of a wireless communication scenario shown in figure 3 on page 72. Figure 3 shows that the functionality for a wireless communication device (shows as a box with a "?") could be the same at either the base station connected to the Internet or on a mobile LAN connected with a host computer [page 71 right hand column].

Since both references disclose networking in general, and more specifically routing IP in a network, examiner notes a motivation to combine the subject matter as a whole for both references.

As to **claim 2**, shown in figure 130 is sending a data packet from host B on an external network, where the destination address 2.2.2.2, to a host on the inside network (i.e., a first of a first number of hosts) such that a network address translation is performed and the destination address is translated into a local address (i.e., the destination address is translated into 1.1.1.1).

As to **claim 4**, examiner notes that it is a matter of design choice for placing the routing and network address translation functionality such that it would have been obvious to a skilled artisan to place this functionality within a mobile phone, assuming that the mobile phone has such functionality available.

As to **claim 5**, it is well known in the art prior to applicant's invention to perform network address translation from either many-to-one or many-to-many nodes such that it would have been obvious to translate only one globally defined address. For example, *Cisco* discloses overloading an inside global address on page DC-697 and illustrated in figure 131.

As to **claims 11 and 12**, shown in figure 130 (and discussed in the rejection for claim 1) is using more than one global address. In addition, the address is maintained for a period of time disclosed on page DC-703. Also disclosed is changing the global IP address to a second global IP address after the timeout occurs.

As to **claims 13 and 14**, shown in the configurations example is directing traffic a certain way. Examiner furthermore notes that this would have been obvious to a skilled artisan as the purpose of a router is to "route" a data packet.

As to **claim 15**, see the same reasoning behind the rejection for claim 2.

As to **claim 16**, see the same reasoning behind the rejection for claim 5.

As to **claim 17**, see the same reasoning behind the rejection for claim 1. (As the table can be setup statically or maintained dynamically, some method of storing is implicitly taught by the reference.)

As to **claim 18**, see the same reasoning behind the rejection for claim 12.

As to **claim 19**, see the same reasoning behind the rejection for claim 1.

As to **claim 20**, see the same reasoning behind the rejection for claim 11.

As to **claim 21**, see the same reasoning behind the rejection for claim 12.

As to **claim 22**, see the same reasoning behind the rejection for claim 2.

As to **claim 23**, see the same reasoning behind the rejection for claim 4.

As to **claim 24**, see the same reasoning behind the rejection for claim 5.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (703) 305-4225. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (703) 308-5340. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 305-3900.

Derrick W. Ferris
Examiner
Art Unit 2663

DWF
February 25, 2003

MELVIN MARCELO
PRIMARY EXAMINER